

REMARKS

No claims have been amended, added or canceled. Therefore, claims 1-15, 23-59, 67 and 68 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 102(e) Rejection:

The Office Action rejected claims 1-9, 12, 14, 43-52, 55, 57, 59, 67 and 68 under 35 U.S.C. § 102(e) as being anticipated by Jantz et al. (U.S. Patent 6,584,499) (hereinafter "Jantz"). Applicants respectfully traverse this rejection for at least the following reasons.

Regarding claim 1, Jantz does not disclose requesting a fabric driver that is part of an operating system for the host system to create an operating system device node in the host system for each of a subset of fabric devices not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system.

Instead, Jantz teaches a method for configuring and monitoring manageable network devices. The device configuration and monitoring described in Jantz *has absolutely nothing to do with* how the devices are accessed through a host system's operating system. The Examiner refers to the description of Jantz's discover-monitor application (DMA) at col. 14, lines 1-30. However, Jantz's discover-monitor application is not a fabric driver that is part of an operating system for the host system. Instead, Jantz's discover-monitor application and other components are *Java applets* (which are clearly not fabric drivers) functioning at an application layer and hence, not part of an operating system. In fact, Jantz describes very clearly that his DMA executes within a browser application (see, Jantz, column 15, lines 5-43).

Additionally, Jantz also fails to disclose receiving a list from a fabric driver of fabric devices available to a host system, wherein the fabric driver is part of an operating system for the host system.

Jantz's discover-monitor application does not receive a list of fabric devices available to a host system from a fabric driver that is part of an operating system for the host system. Instead, Jantz describes two methods for obtaining a list of devices. In the first method, a user "preferably enters the device into DMA 822, and DMA 822 then starts a monitor thread 824 for the entered device" (Jantz, column 15, lines 44-51). In other words, a user of Jantz system may manually input information about a device. Alternatively, Jantz's discover-monitor application may automatically discover all direct network attached devices and all servers. The discover-monitor application then obtains from each server a list of devices it knows about. Jantz does not describe receiving a list *from a fabric driver* of fabric devices available to a host system, wherein the fabric driver is part of an operating system for the host system.

Furthermore, Jantz does not disclose requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system. The Examiner refers to the device connection table described at col. 16, lines 13-20 of Jantz. However, Jantz teaches that the device connection table is simply a connection map created from information obtained from the device controller 806 and thus *is clearly not a system device node* in a host system that provides a mechanism for accessing the device through the operating system on the host system. Instead, Jantz teaches that the connection table is used by the discover-monitor applet 822 to display the device connections, as is shown in Figs. 6 and 7 of Jantz. The connection table in Jantz clearly *has nothing to do with* operating system device nodes. Jantz's teachings pertain to the monitoring and configuring of devices on a network. Jantz's teachings have no relevance to creating an operating system device

node in the host system for each of a subset of fabric devices not already online, as recited in applicants claim 1.

Furthermore, the Examiner admits in the § 103 rejection of claim 1 that Jantz fails to disclose “wherein the fabric driver is part of an operating system for the host system; requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online” (see, Final Office Action, page 10, paragraph 3). **Thus, by the Examiner’s own admission, Jantz does not anticipate Applicants’ claim 1.**

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 43.

Regarding claim 4, Jantz fails to disclose receiving a request to create operating system device nodes in the host system for each fabric device in a selected subset of the fabric device available to the host system. The Examiner refers to Jantz management protocol server being queried via an RPC agent thread for its associated device properties, citing column 16, lines 13-20 of Jantz. However, a query for device properties is very different from a request to create operating system nodes in a host system.

Jantz also fails to disclose creating an operating system device node in the host system for each of the fabric devices in the selected subset not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through an operating system executing on the host system. The Examiner refers to the device connection table described at col. 16, lines 13-20 of Jantz. However, as noted above regarding claim 1, Jantz teaches that the device connection table is simply a connection map created from information obtained from the device controller 806 and thus is clearly not a system device node in a host system that

provides a mechanism for accessing the device through the operating system on the host system.

Instead, Jantz teaches that the connection table is used by the discover-monitor applet 822 to display the device connections, as is shown in Figs. 6 and 7 of Jantz. The connection table in Jantz clearly has nothing to do with operating system device nodes. Jantz's teachings pertain to the monitoring and configuring of devices on a network and have nothing to do with creating an operating system device node in the host system for each of a subset of fabric devices not already online. Furthermore Jantz's connection table does not provide any mechanism for accessing fabric devices through the operating system executing on the host system. Instead, as noted above, Jantz's connection table merely stores connection map for devices.

Please note that Jantz contains no teachings at all in regard to providing operating system device nodes that provide a mechanism for accessing corresponding devices through an operating system executing on the host system, as discussed above.

Furthermore, the Examiner admits in the § 103 rejection of claim 4 that Jantz fails to disclose requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. **Thus, by the Examiner's own admission, Jantz does not anticipate Applicants' claim 4.**

Thus, for at least the reasons presented above, the rejection of claim 4 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 47.

Regarding claim 9, Jantz fails to disclose receiving a request to on-line a subset of the identified devices. The Examiner cites column 13, lines 45-55 and refers to a user selecting a device node in a user interface causing the device's associated management interface application program to be launched. However, launching a management application is clearly not the same as receiving a request to on-line a subset of the

identified devices. Furthermore, Jantz does not teach that launching a device's management interface application program involves either requesting or receiving a request to on-line a device.

Jantz further fails to disclose creating an operating system device node within the host system for each of the identified devices in the subset that is not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of the identified devices through an operating system executing on the host system. The Examiner cites column 16, lines 13-20 where Jantz describes building a device connection table that provides, for each device, a list of connections into the device. As noted above, connection table is simply a connection map created from information obtained from the device controller 806 and thus is clearly not a system device node in a host system. For a more detailed discussion regarding Jantz connection table, please refer to the remarks above regarding claims 1 and 4.

Applicants again note that Jantz contains absolutely no teachings at all in regard to providing operating system device nodes that provide a mechanism for accessing corresponding devices through an operating system executing on the host system, as discussed above.

Furthermore, the Examiner admits in the § 103 rejection of claim 9 that Jantz fails to disclose requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. **Thus, by the Examiner's own admission, Jantz does not anticipate Applicants' claim 9.**

Thus, for at least the reasons presented above, the rejection of claim 9 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 52.

Regarding claim 67, **Examiner admits that Jantz does not disclose requesting that each of the fabric devices in the subset be brought online if not already online for use**

from the host system. The Examiner cites column 16, lines 10-25 and refers to Jantz's teachings regarding building a connection table and Jantz teachings regarding displaying information regarding discovered devices on a display screen. The Examiner argues that fact that Jantz builds a connection table and displays all discovered devices indicates that Jantz's system "brings all discovered devices online". Applicants strongly disagree.

Building a connection table including connection to device mappings and that indicates which management application program is associated with each device does not imply that devices must have been brought online. The ability to display and manipulate information about devices does not require or imply bring those devices online. For instance, information about devices, connections and management programs can be manipulated (i.e. mappings built and information displayed) regardless of whether the devices are online. Secondly, Jantz does not mention anything about bringing devices online as part of either building his connection table or displaying discovered devices. Thus, the Examiner's rejection is clearly based on hindsight analysis and speculation.

Furthermore, the Examiner admits in the § 103 rejection of claim 67 that Jantz fails to disclose requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. **Thus, by the Examiner's own admission, Jantz does not anticipate Applicants' claim 67.**

For at least the reasons presented above, the rejection of claim 67 is not supported by the prior art and removal thereof is respectfully requested.

Section 103(a) Rejection:

The Office Action rejected claims 1-9, 12, 14, 43-52, 55, 57, 67 and 68 under 35 U.S.C. § 103(a) as being unpatentable over Jantz in view of Nolan et al. (U.S. Patent 6,640,278) (hereinafter "Nolan"). Applicants respectfully traverse this rejection in light of the following remarks.

Regarding claim 1, Jantz in view of Nolan does not teach or suggest requesting a fabric driver that is part of an operating system for the host system to create an operating system device node in the host system for each of a subset of fabric devices not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system. Instead, Jantz teaches a method for configuring and monitoring manageable network devices. The device configuration and monitoring described in Jantz *has absolutely nothing to do with* how the devices are accessed through a host system's operating system.

The Examiner refers to the description of Jantz's discover-monitor application (DMA) at col. 14, lines 1-30. However, Jantz's discover-monitor application is not a fabric driver that is part of an operating system for the host system. Instead, Jantz's discover-monitor application and other components are *Java applets* (which are clearly not fabric drivers) functioning at an application layer and hence, are not part of an operating system. In fact, Jantz describes very clearly that his DMA executes within a browser application (see, Jantz, column 15, lines 5-43).

Additionally, Jantz in view of Nolan also fails to teach or suggest receiving a list from a fabric driver of fabric devices available to a host system, wherein the fabric driver is part of an operating system for the host system. Jantz's discover-monitor application does not receive a list of fabric devices available to a host system *from a fabric driver that is part of an operating system* for the host system. For a more detailed discussion regarding Jantz's methods for obtaining lists of devices, please see the discussion above regarding the § 102 rejection of claim 1.

Furthermore, Jantz in view of Nolan does not teach or suggest requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system. The Examiner refers

to the device connection table described at col. 16, lines 13-20 of Jantz. However, Jantz teaches that the device connection table is simply a connection map created from information obtained from the device controller 806 and thus *is clearly not a system device node* in a host system that provides a mechanism for accessing the device through the operating system on the host system. For a more detailed discussion regarding Jantz's connection table, please see the discussion above regarding the § 102 rejection of claim 1.

The Examiner admits that Jantz fails to disclose wherein the fabric driver is part of an operating system for the host system, and requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. The Examiner states, "Nolan teaches that a server includes resources in an operating system" and argues, "[e]ach resource is represented as the fabric driver ... [t]he server also builds LUNs that are displayed to a user." The Examiner is apparently arguing that since Nolan discloses a server that includes some resources in an operating system, it would be obvious to modify Jantz to include the specific fabric driver from Applicants' claim 1. This reasoning makes no sense. The Examiner is referring to a portion of Nolan that describes the management of emulated storage devices. Nolan does not mention anything regarding a fabric driver in an operating system that is requested to create operating system device nodes in a host system. Furthermore, the Examiner's proposed combination of Jantz and Nolan would not result in a system that includes such a fabric driver (as recited in Applicants' claim 1). Instead the combination of Jantz and Nolan would result in a system that discovers and displays information regarding network devices as taught by Jantz, but that could also display information about emulated devices as in Nolan.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 43.

Regarding claim 4, Jantz fails to disclose receiving a request to create operating system device nodes in the host system for each fabric device in a selected subset of the fabric device available to the host system. Jantz also fails to disclose creating an operating system device node in the host system for each of the fabric devices in the selected subset not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through an operating system executing on the host system.

The Examiner refers to the device connection table described at col. 16, lines 13-20 of Jantz. However, as noted above regarding claim 1, Jantz teaches that the device connection table is simply a connection map created from information obtained from the device controller 806 and thus is clearly not a system device node in a host system that provides a mechanism for accessing the device through the operating system on the host system. For a more detailed discussion regarding Jantz's connection table, please see the discussion above regarding the § 102 rejection of claim 4.

The Examiner admits that Jantz fails to disclose wherein the fabric driver is part of an operating system for the host system; and requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. The Examiner argues, "Nolan teaches that a server includes resources in an operating system" and argues, "[e]ach resource is represented as the fabric driver ... [t]he server also builds LUNs that are displayed to a user." The Examiner is apparently arguing that since Nolan discloses a server that includes some resources in an operating system, it would be obvious to modify Jantz to include the specific fabric driver from Applicants' claim 4. There is clearly no such suggestion in Nolan. The Examiner is referring to a portion of Nolan that describes the management of emulated storage devices. Nolan does not mention anything regarding a fabric driver in an operating system that is requested to create operating system device nodes in a host system. Furthermore, the Examiner's proposed combination of Jantz and Nolan would not result in a system that includes such a fabric driver (as recited in Applicants' claim 4). Instead the combination of Jantz and Nolan would result in a system that discovers and

displays information regarding network devices as taught by Jantz, but that could also display information about emulated devices as in Nolan.

Thus, for at least the reasons presented above, the rejection of claim 4 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 47.

Regarding claim 9, Jantz fails to disclose creating an operating system device node within the host system for each of the identified devices in the subset that is not already online, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of the identified devices through an operating system executing on the host system. The Examiner cites column 16, lines 13-20 where Jantz describes building a device connection table that provides, for each device, a list of connections into the device. As noted above, connection table is simply a connection map created from information obtained from the device controller 806 and thus is clearly not a system device node in a host system. For a more detailed discussion regarding Jantz connection table, please refer to the remarks above regarding claim 1.

The Examiner admits that Jantz fails to disclose wherein the fabric driver is part of an operating system for the host system; and requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. The Examiner states, “Nolan teaches that a server includes resources in an operating system” and argues, “[e]ach resource is represented as the fabric driver ... [t]he server also builds LUNs that are displayed to a user.” The Examiner is apparently arguing that since Nolan discloses a server that includes some resources in an operating system, it would be obvious to modify Jantz to include the specific fabric driver from Applicants’ claim 9. Nolan contains no such suggestion. The Examiner is referring to a portion of Nolan that describes the management of emulated storage devices. Nolan does not mention anything regarding a fabric driver in an operating system that is requested to create operating system device nodes in a host system. Furthermore, the Examiner’s proposed combination of Jantz and Nolan would not result

in a system that includes such a fabric driver (as recited in Applicants' claim 9). Instead the combination of Jantz and Nolan would result in a system that discovers and displays information regarding network devices as taught by Jantz, but that could also display information about emulated devices as in Nolan.

Thus, for at least the reasons presented above, the rejection of claim 9 is not supported by the prior art and removal thereof is respectfully requested. Remarks similar to those above also apply to claim 52.

Regarding claim 67, Examiner admits that Jantz does not disclose requesting that each of the fabric devices in the subset be brought online if not already online for use from the host system. The Examiner cites column 16, lines 10-25 and contends that Jantz's teachings regarding building a connection table, which includes a list of connections to a device and information about a which management application program is associated with a device, and Jantz teachings regarding displaying information regarding discovered devices on a display screen indicate that Jantz system brings all discovered devices online. Applicants strongly disagree. Discovering and displaying information regarding devices on a network is very different from requesting that those devices be brought online. Jantz makes no mention whatsoever regarding requesting that devices be brought online. For a more detailed discussion regarding this argument, please see the discussion above regarding the § 102 rejection of claim 67.

The Examiner admits that Jantz fails to disclose wherein the fabric driver is part of an operating system for the host system, and requesting the fabric driver to create an operating system device node in the host system for each of the fabric devices in the subset not already online. The Examiner states, "Nolan teaches that a server includes resources in an operating system" and argues, "[e]ach resource is represented as the fabric driver ... [t]he server also builds LUNs that are displayed to a user." The Examiner is apparently arguing that since Nolan discloses a server that includes some resources in an operating system, it would be obvious to modify Jantz to include the specific fabric driver from Applicants' claim 67. Nolan contains no such suggestion. The Examiner is

referring to a portion of Nolan that describes the management of emulated storage devices. Nolan does not mention anything regarding a fabric driver in an operating system that is requested to create operating system device nodes in a host system. Furthermore, the Examiner's proposed combination of Jantz and Nolan would not result in a system that includes such a fabric driver (as recited in Applicants' claim 67). Instead the combination of Jantz and Nolan would result in a system that discovers and displays information regarding network devices as taught by Jantz, but that could also display information about emulated devices as in Nolan.

For at least the reasons presented above, the rejection of claim 67 is not supported by the prior art and removal thereof is respectfully requested.

The Office Action rejected claims 23-25, 28-30 and 40-42 under 35 U.S.C. § 103(a) as being unpatentable over Blumenau (U.S. Patent 6,665,714) in view of Nolan. Applicants respectfully traverse this rejection in light of the following remarks.

Regarding claim 23, Blumenau in view of Nolan does not teach or suggest a fabric driver that is configured to online a selected subset of fabric devices so that the selected subset of fabric devices are accessible from the host system, wherein the fabric driver is further configured to create operating system device nodes within the host system for each device of the selected subset, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system. Instead, Blumenau teaches a method for configuring storage systems to determine whether devices are authorized to access data according to the identity of the devices (Blumenau -- col. 1, line 42 – col. 2, line 12). Blumenau has nothing to do with creating operating system device nodes for accessing devices through a host system's operating system.

The Examiner refers to Blumenau's description at col. 23, line 60 – col. 24, line 25 of an interface for displaying information about devices. Applicants fail to see how this has any relevance to Applicants' claimed invention. Blumenau's teachings have

nothing to do with creating operating system device nodes within a host system for each device of a selected subset. Blumenau pertains to the configuration of storage systems at the application level.

The Examiner admits that Blumenau does not teach wherein the fabric driver is further configured to online the selected subset of fabric devices so that the selected subset of fabric devices are accessible from the host system, wherein the fabric driver is further configured to create operating system device nodes within the host system for each device of the selected subset, wherein each operating system device node provides a mechanism for accessing a corresponding one of the subset of fabric devices through the operating system executing on the host system. The Examiner relies upon Nolan, citing FIGs 22-24 of Nolan and asserting, “Nolan teaches creating LUNs within the host system for each device and accessing LUNs through the operating system and selecting subset information within disks or LUNs.”

However, none of the cited Figures having anything to do with a fabric driver as recited in Applicants claim 23. Instead, the cited figures of Nolan and the corresponding descriptions describe various screens of Nolan’s user interface for configuring a storage server. For example, FIG. 22 illustrates a user interface including a hierarchical tree structure for displaying information regarding storage elements. Neither displaying and manipulating information regarding storage elements nor configuring storage elements of a storage server teach or suggest a fabric driver configured to online fabric devices so that the devices are accessible from a host system and that is further configured to create operating system device nodes for the devices.

Thus, Blumenau and Nolan, both singly and in combination, clearly fail to teach or suggest the limitations of Applicants’ claim 23. For at least the reasons given above, the rejection of claim 23 is not supported by the prior art and removal thereof is respectfully requested.

The Office Action rejected claims 10, 11, 53 and 54 under 35 U.S.C. § 103(a) as being unpatentable over Jantz in view of Nolan and further in view of Blumenau et al. (U.S. Patent 6,665,714) (hereinafter "Blumenau"), claims 13 and 56 as being unpatentable over Jantz in view of Nolan and further in view of Carlson et al. (U.S. Patent 5,600,791) (hereinafter "Carlson") and Basham et al. (U.S. Patent 6,182,167) (hereinafter "Basham"), claims 15 and 58 as being unpatentable over Jantz in view of Nolan and further in view of Wieland (U.S. Patent 6,643,748), claim 26 as being unpatentable over Blumenau in view of Nolan and further in view of Nolan (U.S. Patent 6,466,141) (hereinafter "Nolan 141"), claim 27 as being unpatentable over Blumenau in view of Nolan and further in view of Nolan 141 and Sambamurthy et al. (U.S. Patent 6,393,489) (hereinafter "Sambamurthy"), claim 31 as being unpatentable over Blumenau in view of Nolan and further in view of Jantz, claims 32-37 as being unpatentable over Blumenau in view of Nolan and further in view of Chow et al. (U.S. Patent 6,594,698) (hereinafter "Chow"), claims 38-39 as being unpatentable over Blumenau in view of Nolan and further in view of Chow, Carlson and Basham, claims 10, 11, 53 and 54 as being unpatentable over Jantz in view of Blumenau, claims 13 and 56 as being unpatentable over Jantz in view of Carlson and Basham, and claims 15 and 58 as being unpatentable over Jantz in view of Wieland. Applicants respectfully traverse all of the rejections of these claims for at least the reasons given above in regard to their respective independent claims.

Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Information Disclosure Statement:

Applicants note that the Examiner returned the Form PTO-1449 from July 14, 2003, however, it was not signed or dated and references C1-C5 were not initialed. Applicants also note that an electronic IDS was submitted on November 15, 2004.

Applicants respectfully request the Examiner to carefully consider the listed references and return a copies of the properly signed and initialed Forms PTO-1449 from these statements.

CONCLUSION

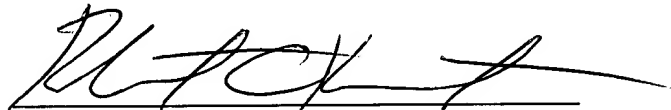
Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-79200/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,



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